

What Is Claimed Is:

1. A page information display method for displaying  
the electronic information using an information access  
device comprising a storage unit for storing the electronic  
information having plural pages of information in a unit  
5 of page of predetermined size, a display unit for displaying  
the electronic information stored in said storage unit in  
said unit of page, and an operation unit for inputting an  
operation to gain access to said page information, said  
operation unit being provided in the substantially same  
10 area as said display unit, comprising:

a page turning operation detecting step of outputting  
a page turning operation detecting signal when a dragging  
is made on said operation unit in parallel or anti-parallel  
to a predefined page turning direction at a current page  
15 read from said storage unit that is to be displayed at  
present;

a next display page setting step of setting a preceding  
page or a succeeding page immediately before or after the

current page depending on a direction of said dragging  
20 operation to a next display page to be displayed at the  
next time, when the page turning operation detecting signal  
is output in said page turning operation detecting step;  
and

a page turning process step of displaying the next  
25 display page set in said next display page setting step  
in place of said current page on said display unit.

2. The page information display method according to  
Claim 1, wherein said page turning operation detecting step  
further comprises a page turning operation judging substep  
of judging, as said page turning operation, an operation  
5 exceeding a minimum operation length in said page turning  
direction within a predefined allowance region in a  
direction orthogonal to said page turning direction.

3. The page information display method according to  
Claim 1, wherein said page turning operation detecting step  
further comprises an operation rate calculating substep  
of calculating a page turning rate that is a speed of said

5 page turning operation, and said page turning process step  
further comprises a display rate setting substep of setting  
a display rate corresponding to the page turning rate  
calculated in said operation rate calculating step to  
change the display from the current page to the next display  
10 page.

4. A page information display device having an  
electronic information memory for memorizing the  
electronic information having plural pages of information  
in a unit of page of predetermined size, a touch panel for  
5 displaying the electronic information stored in said  
electronic information memory in said unit of page, as well  
as inputting an operation to gain access to said page  
information, and a display controller for controlling the  
display of the page information stored in said electronic  
10 information memory on the basis of an operation content  
input into said touch panel,

wherein said display controller comprises:

a page turning operation detecting portion for  
outputting a page turning operation detecting signal when  
15 a dragging is made on said touch panel in parallel or  
anti-parallel to a predetermined page turning direction  
at a current page read from said electronic information  
memory that is to be displayed at present;

a next display page setting portion for setting a  
20 preceding page or a succeeding page immediately before or  
after the current page depending on a direction of said  
dragging operation to a next display page to be displayed  
at the next time, when the page turning operation detecting  
signal is output by said page turning operation detecting  
25 portion; and

a page turning process portion for displaying the next  
display page set in said next display page setting portion  
in place of said current page on said touch panel.

5. A storage medium for storing a page information  
display program for displaying the electronic information,  
employing an information access device having an

electronic information memory for memorizing the  
5 electronic information having plural pages of information  
in a unit of page of predetermined size, a touch panel for  
displaying the electronic information stored in said  
electronic information memory in said unit of page, as well  
as inputting an operation to gain access to said page  
10 information, and a display controller for controlling the  
display of the page information stored in said electronic  
information memory on the basis of an operation content  
input into said touch panel,

wherein said page information display program  
15 comprises, as the commands for operating said display  
controller:

a page turning operation detecting command for  
outputting a page turning operation detecting signal when  
a dragging is made on said touch panel in parallel or  
20 anti-parallel to a predetermined page turning direction  
at a current page read from said electronic information  
memory that is to be displayed at present;

a next display page setting command for setting a preceding page or a succeeding page immediately before or  
25 after the current page depending on a direction of said dragging operation to a next display page to be displayed at the next time, when the page turning operation detecting signal is output; and

a page turning process command for displaying the next  
30 display page set in accordance with said next display page setting command in place of said current page on said touch panel.

6. A page information display method for displaying the electronic information, employing an information access device comprising a storage unit for storing the electronic information having plural pages of information  
5 in a unit of page of predetermined size, a display unit for displaying the electronic information stored in said storage unit in said unit of page, and an operation unit for inputting an operation to gain access to said page

information, said operation unit being provided in the  
10 substantially same area as said display unit, comprising:

a page holding operation detecting step of outputting  
a page holding operation detecting signal when a  
predetermined page holding operation is made at a current  
page read from said storage unit that is to be displayed  
15 at present;

a holding page number displaying step of displaying  
the total number of holding pages in accordance with the  
amount of said page holding operation on said display unit,  
when the page holding operation is initially detected in  
20 said page holding operation detecting step;

a next display page setting step of setting a page  
having a page number that is equal to the current page added  
or subtracted by the amount of said holding operation to  
a next display page to be displayed at the next time, when  
25 the page holding operation detecting signal is output in  
said page holding operation detecting step; and

a page turning process step of displaying the next display page set in said next display page setting step in place of said current page on said display unit.

7. The page information display method according to Claim 6, wherein said page holding operation detecting step further comprises a pressure holding page number calculating substep of calculating said number of holding  
5 pages in accordance with the magnitude of a pressure applied to the substantially same position of said operation unit.

8. The page information display method according to Claim 6, wherein said page holding amount operation detecting step comprises a time holding page number calculating substep of calculating said number of holding  
5 pages in accordance with the elapsed time of a depressing operation that continues at the substantially same position of said operation unit.

9. The page information display method according to Claim 7, wherein said holding page number displaying step comprises a substep of displaying a holding display circle



defined with a radius of the size corresponding to said  
5 page holding amount on said display unit.

10. The page information display method according to  
Claim 7, wherein said holding page number displaying step  
comprises a substep of displaying a multiloop consisting  
of a number of circles around the same center and  
5 corresponding to said page holding amount.

11. The page information display method according to  
Claim 7, wherein said holding page number displaying step  
comprises a substep of displaying a coated circle defined  
with a radius of predetermined size, said circle being  
5 coated corresponding to said page holding amount.

12. A page information display device having an  
electronic information memory for memorizing the  
electronic information having plural pages of information  
in a unit of page of predetermined size, a touch panel for  
5 displaying the electronic information stored in said  
electronic information memory in said unit of page, as well  
as inputting an operation to gain access to said page

information, and a display controller for controlling the display of the page information stored in said electronic information memory on the basis of an operation content input into said touch panel,

wherein said display controller comprises:

a page holding operation detecting portion for outputting a page holding operation detecting signal when a predetermined page holding operation is performed at a current page read from said electronic information memory that is to be displayed at present;

a holding page number display unit for displaying the total number of holding pages in accordance with the operation amount of said page holding operation on said display unit, when the page holding operation is initially detected by said page holding operation detecting portion;

a next display page setting portion for setting a page having a page number that is equal to the current page added or subtracted by said amount of holding operation to a next display page to be displayed at the next time, when the

page holding operation detecting signal is output from said  
page holding operation detecting portion; and

a page turning process portion for displaying the next  
30 display page set in said next display page setting portion  
in place of said current page on said touch panel.

13. A storage medium for storing a page information  
display program for displaying the electronic information,  
employing an information access device having an  
electronic information memory for memorizing the  
5 electronic information having plural pages of information  
in a unit of page of predetermined size, a touch panel for  
displaying the electronic information stored in said  
electronic information memory in said unit of page, as well  
as inputting an operation to gain access to said page  
10 information, and a display controller for controlling the  
display of the page information stored in said electronic  
information memory on the basis of an operation content  
input into said touch panel,

wherein said page information display program  
15 comprises, as the commands for operating said display  
controller:

a page holding operation detecting command for  
outputting a page holding operation detecting signal when  
a predetermined page holding operation is performed at a  
20 current page read from said electronic information memory  
that is to be displayed at present;

a holding page number display command for displaying  
the total number of holding pages in accordance with the  
operation amount of said page holding operation on said  
25 display unit, when the page holding operation is initially  
detected upon said page holding operation detecting  
command;

a next display page setting command for setting a page  
having a page number that is equal to the current page added  
30 or subtracted by said amount of holding operation to a next  
display page to be displayed at the next time, when said  
page holding operation detecting signal is output in

accordance with said page holding operation detecting command; and

35        a page turning process command for displaying the next display page set in accordance with said next display page setting command in place of said current page on said touch panel.

14. A page information display method for displaying the electronic information, employing an information access device having a storage unit for storing the electronic information having plural pages of information  
5    in a unit of page of predetermined size, a display unit for displaying the electronic information stored in said storage unit in said unit of page, and an operation unit for inputting an operation to gain access to said page information, said operation unit being provided in the  
10   substantially same area as said display unit, comprising:

      a page turning operation detecting step of outputting a page turning operation detecting signal having the number of holding pages and a page turning direction defined, when

a page turning operation for turning one or more pages is  
15 performed in said operation unit;

a next display page setting step of setting a preceding  
page or a succeeding page by said number of holding pages  
before or after the current page depending on said page  
turning direction to a next display page to be displayed  
20 at the next time, when the page turning operation is  
completed in said page turning operation detecting step  
and the page turning operation detecting signal is output;  
and

a page turning process step of displaying the next  
25 display page set in said next display page setting step  
in place of said current page on said display unit,

said page turning process step further comprising:

a next display page reading substep of reading said  
next display page from said storage unit, when said next  
30 display page is set;

a turning state display data creating substep of  
transforming the current page data making up the current

page that is being displayed on said display unit at every unit display time, as well as creating the turning state display data into which said current page is transformed, 35 when said page turning operation detecting signal is output; and

a turning state display data overwriting step of overwriting the turning state display data created in said turning state display data creating substep on the next 40 display data read in said next display page reading substep at every unit display time until said turning state display data is exhausted.

15. The page information display method according to Claim 14, wherein said turning state display data creating step further comprises an overwriting display control substep of deleting an area on the start point side in the 5 page turning direction at every said unit time.

16. The page information display method according to Claim 14, wherein said turning state display data creating step further comprises a slide display control substep of

deleting an area on the end point side in the page turning  
5 direction at every said unit time as well as shifting the  
current page data by the amount of said deleted area in  
the page turning direction.

17. The page information display method according to  
Claim 14, wherein said turning state display data creating  
step further comprises a compression display control  
substep of reducing the display length in the page turning  
5 direction at every said unit time as well as compressing  
said current page data to said reduced display length in  
said page turning direction.

18. The page information display method according to  
Claim 14, wherein said turning state display data creating  
step further comprises:

a three dimensional space defining substep of defining  
5 a virtual space in a normal direction of said display unit;

a current page rotating and transforming substep of  
rotating and transforming said current page within said



virtual space around the end point side in said page turning direction; and

10        a three dimensional display control substep of drawing a front side and a back side of the current page rotated and virtually transformed in said current page rotating substep in a two dimensional plane as viewed in a normal direction of said display unit as well as setting said  
15        drawing data to the turning state display data.

19. The page information display method according to Claim 14, wherein said turning state display data creating step further comprises a substep of creating the turning state display data having said current page integrated with  
5        a tag portion, when a tag is appended to said current page.

20. The page information display method according to Claim 14, wherein said turning state display data creating step further comprises a substep of transforming said current page ahead of transforming each of said holding  
5        pages, when the number of holding pages detected in said page turning operation detecting step is greater than one.

21. A page information display device having an electronic information memory for memorizing the electronic information having plural pages of information in a unit of page of predetermined size, a touch panel for displaying the electronic information stored in said  
5 electronic information memory in said unit of page, as well as inputting an operation to gain access to said page information, and a display controller for controlling the display of the page information stored in said electronic  
10 information memory on the basis of an operation content input into said touch panel,

wherein said display controller comprises:

a page turning operation detecting portion for outputting a page turning operation detecting signal with  
15 the number of holding pages and a page turning direction defined, when a page turning operation for turning one or more pages is performed on said touch panel;

a next display page setting portion for setting a preceding page or a succeeding page by said number of

20 holding pages before or after the current page depending  
on said page turning direction to a next display page to  
be displayed at the next time, when the page turning  
operation is completed in said page turning operation  
detecting portion and the page turning operation detecting  
25 signal is output; and

a page turning process portion for displaying the next  
display page set in said next display page setting portion  
in place of said current page on said display unit,

wherein said page turning process portion comprises:

30 a next display page reading function of reading said  
next display page from said electronic information memory,  
when said next display page is set;

a turning state display data creating function of  
transforming the current page data making up the current  
35 page that is being displayed on said touch panel at every  
unit display time as well as creating the turning state  
display data into which said current page is transformed,

when said page turning operation detecting signal is  
output; and

40        a turning state display data overwriting function of  
overwriting the turning state display data created in said  
turning state display data creating function on the next  
display page read in said next display page reading function  
until said turning state display data is exhausted.

22. A storage medium for storing a page information  
display program for displaying the electronic information,  
employing an information access device having an  
electronic information memory for memorizing the  
5    electronic information having plural pages of information  
in a unit of page of predetermined size, a touch panel for  
displaying the electronic information stored in said  
electronic information memory in said unit of page, as well  
as inputting an operation to gain access to said page  
10    information, and a display controller for controlling the  
display of the page information stored in said electronic

information memory on the basis of an operation content  
input into said touch panel,

wherein said page information display program  
15 comprises, as the commands for operating said display  
controller:

a page turning operation detecting command for  
outputting a page turning operation detecting signal with  
the number of holding pages and a page turning direction  
20 defined, when a page turning operation for turning one or  
more pages is performed on said touch panel;

a next display page setting command for setting a  
preceding page or a succeeding page by said number of  
holding pages before or after the current page depending  
25 on said page turning direction to a next display page to  
be displayed at the next time, when the page turning  
operation is completed in accordance with said page turning  
operation detecting command and the page turning operation  
detecting signal is output; and

30       a page turning process command for displaying the next  
display page set in accordance with said next display page  
setting command in place of said current page on said  
display unit,

      said page turning process command further comprising:

35       a next display page reading command for reading said  
next display page from said electronic information memory,  
when said next display page is set;

      a turning state display data creating command for  
transforming the current page data making up the current  
40   page that is being displayed on said display unit at every  
unit display time as well as creating the turning state  
display data into which said current page is transformed,  
when said page turning operation detecting signal is  
output; and

45       a turning state display data overwriting command for  
overwriting the turning state display data created in  
accordance with said turning state display data creating  
command on the next display page read in accordance with

said next display page reading command at every unit display  
50 time until said turning state display data is exhausted.

23. A page information display method for displaying  
the electronic information, employing an information  
access device having a storage unit for storing the  
electronic information having plural pages of information  
5 in a unit of page of predetermined size, a display unit  
for displaying the electronic information stored in said  
storage unit in said unit of page, and an operation unit  
for inputting an operation to gain access to said page  
information, said operation unit being provided in the  
10 substantially same area as said display unit, wherein said  
display unit has an information access area for displaying  
the electronic information stored in said storage unit in  
said unit of page, and one and the other tag display areas  
for displaying a tag indicating the content of said page,  
15 said tag display areas being provided at both ends of said  
information access area, comprising:

a page holding operation detecting step of outputting  
a page holding operation detecting signal, when a  
predetermined page holding operation is performed at a  
20 current page read from said storage unit that is to be  
displayed at present;

a next display page setting step of setting a page  
having a page number that is equal to the current page added  
or subtracted by said amount of holding operation to a next  
25 display page to be displayed at the next time, when the  
page holding operation detecting signal is output in said  
page holding operation detecting step; and

a page turning process step of displaying the next  
display page set in said next display page setting step  
30 in place of said current page on said display unit,

following said page holding operation detecting step,  
further comprising a before-turning holding object page  
tag coloring step of coloring a tag for a holding object  
page that is held by said page holding operation with a  
35 different color from other tags in one tag display area



that is displaying a tag appended to the current page, when the page holding operation is initially detected in said page holding operation detecting step.

24. The page information display method according to Claim 23, further comprising, following said page turning process step, an after-turning holding object page tag coloring step of coloring a page tag for said holding object  
5 page, for which said page turning process is completed, in the other tag display area where a tag appended to a current page that has become the new current page after the page turning process is not displayed, with a different color from other tags.

25. A page information display method for displaying the electronic information, employing an information access device having a storage unit for storing the electronic information having plural pages of information  
5 in a unit of page of predetermined size, a display unit for displaying the electronic information stored in said storage unit in said unit of page, and an operation unit

for inputting an operation to gain access to said page  
information, said operation unit being provided in the  
10 substantially same area as said display unit,

wherein said display unit has an information access  
area for displaying the electronic information stored in  
said storage unit in said unit of page, a succeeding page  
tag display area for displaying a tag appended to a current  
15 page read from said storage unit that is to be displayed  
at present and the succeeding page tags appended to the  
pages succeeding said current page, and a preceding page  
tag display area for displaying the preceding page tags  
appended to the pages preceding said current page,  
20 comprising:

a current page tag height calculating step of  
calculating a display height of the current page tag on  
the basis of the position of said current page with respect  
to the total number of pages for the electronic information  
25 stored in said storage unit;

a succeeding page tag display format designating step of designating a display format of said succeeding page tags on the basis of the tag height of the current page tag calculated in said current page tag height calculating  
30 step and the total number of succeeding pages; and

a preceding page tag display format designating step of designating a display format of said preceding page tags on the basis of the tag height of said current page tag and the total number of preceding pages before or after  
35 said succeeding page tag display format designating step,

the method further comprising:

a page holding operation detecting step of outputting a page holding operation detecting signal, when a predetermined page holding operation is performed at the  
40 current page;

a next display page setting step of setting a page having a page number that is equal to the current page added or subtracted by said amount of holding operation to a next display page to be displayed at the next time, when the

45 page holding operation detecting signal is output in said  
page holding operation detecting step; and

a page turning process step of displaying the next  
display page set in said next display page setting step  
in place of said current page on said display unit,

50 said page turning process step further comprising a  
holding object page tag display substep of displaying the  
tags appended to the current page that is an object of said  
turning process and the holding object pages held in said  
holding operation in a display format in accordance with  
55 a direction of the page turning process among those  
designated in said preceding page tag display format  
designating step or said succeeding page tag display format  
designating step within said information access area,  
following the transformation or movement of the current  
60 page in said current page turning process.

26. The page information display method according to  
Claim 25, further comprising, following said page holding  
operation detecting step:

a before-turning holding object page tag coloring step  
5 of coloring a tag for a holding object page that is held  
by said page holding operation with a different color from  
other tags in one tag display area that is displaying a  
tag appended to the current page, when the page holding  
operation is initially detected in said page holding  
10 operation detecting step; and

an after-turning holding object page tag coloring step  
for coloring a page tag for said holding object page, for  
which said page turning process is completed, in the other  
tag display area where a tag appended to a current page  
15 that has become the new current page after the page turning  
process is not displayed, with a different color from other  
tags, following said page turning process step.

27. The page information display method according to  
Claim 25, wherein said holding object page tag display  
control step further comprises a substep of setting the  
tags appended to the current page that becomes the turning  
5 process object and the holding object pages held in said

holding operation in a display format of equal and close interval between tags.

28. A page information display method for displaying the electronic information, employing an information access device having a storage unit for storing the electronic information having plural pages of information in a unit of page of predetermined size, a display unit for displaying the electronic information stored in said storage unit in said unit of page, and an operation unit for inputting an operation to gain access to said page information, said operation unit being provided in the substantially same area as said display unit, wherein said display unit has an information access area for displaying the electronic information stored in said storage unit in said unit of page, and one and the other tag display areas for displaying a tag indicating the content of said page, the tag display areas being provided at both ends of said information access area, comprising:

a page holding operation detecting step of outputting  
a page holding operation detecting signal, when a page  
holding operation is performed for the tags displayed in  
20 said one or the other tag display area;

a next display page setting step of setting a page  
having a page number that is equal to the current page added  
or subtracted by said amount of holding operation to a next  
display page to be displayed at the next time, when the  
25 page holding operation detecting signal is output in said  
page holding operation detecting step; and

a page turning process step of displaying the next  
display page set in said next display page setting step  
in place of said current page on said display unit,  
30 the method further comprising:

following said page holding operation detecting step,  
a tag holding circle display step of displaying a circle  
corresponding to the number of holding object pages in said  
page holding operation over a tag for which said page  
35 holding operation is detected, when the page holding

operation is initially detected in said page holding operation detecting step.

29. A page information display method for displaying the electronic information, employing an information access device having a storage unit for storing the electronic information having plural pages of information in a unit of page of predetermined size, a display unit for displaying the electronic information stored in said storage unit in said unit of page, and an operation unit for inputting an operation to gain access to said page information, said operation unit being provided in the substantially same area as said display unit, comprising,

an article information enlarging operation detecting step of outputting an article information enlarging operation detecting signal having the positional information as to an article information enlarging operation, when the article information enlarging operation is detected on said operation unit, in the case where plural articles of information making up a current



page are defined in said current page read from said storage unit that is to be displayed at present; and

20        an article information enlarging display step of displaying in enlargement the article information at a position indicated by said positional information on said display unit, in the case where the article information enlarging operation detecting signal is output in said  
25        article information enlarging operation detecting step.

30.    The page information display method according to Claim 29, wherein said article information enlarging operation detecting step further comprises a substep of outputting an article information enlarging operation  
5        detecting signal including a click position as said positional information, when a click is made on said operation unit.

31.    The page information display method according to Claim 29, wherein said article information enlarging operation detecting step further comprises an article information continuous enlarging operation detecting

5    substep of outputting an article information continuous  
enlarging operation detecting signal in the case where two  
or more articles of information is contained in a locus  
of dragging, when a dragging is made on said operation unit,  
and said article information enlarging display step  
10   comprises a continuous enlarging display substep of  
displaying in enlargement said article information  
individually in time series at every predetermined time  
interval in the order of said dragging, in the case wherein  
said article information continuous enlarging operation  
15   detecting signal is output.

32.   The page information display method according to  
Claim 31, wherein said continuous enlarging display step  
further comprises a substep of displaying in enlargement  
said two or more articles of information in time series  
5   continuously at a time interval in accordance with a rate  
of said dragging.

33.   The page information display method according to  
Claim 29, further comprising, following said article

information enlarging display step: an article display  
page turning inhibit control step of inhibiting a normal  
5 page turning operation while said article information is  
being displayed in enlargement.

34. A page information display method for displaying  
the electronic information, employing an information  
access device having a storage unit for storing the  
electronic information having plural pages of information  
5 in a unit of page of predetermined size, a display unit  
for displaying the electronic information stored in said  
storage unit in said unit of page, and an operation unit  
for inputting an operation to gain access to said page  
information, said operation unit being provided in the  
10 substantially same area as said display unit, comprising:

an article information enlarging operation detecting  
step of outputting an article information enlarging  
operation detecting signal having the positional  
information as to an article information enlarging  
15 operation, when the article information enlarging

operation is detected on said operation unit, in the case where plural articles of information making up a current page are defined at said current page read from said storage unit that is to be displayed at present; and

20        an article information enlarging display step of displaying in enlargement the article information at a position indicated by said positional information on said display unit, in the case where an article information enlarging operation detecting signal is output in said  
25        article information enlarging operation detecting step,

      said article information enlarging display step further comprising an enlarging time wire frame display substep of enabling a wire frame, with a start region at an outside periphery of said article information to be  
30        enlarged, to be displayed at multiple stages of varying sizes up to an outside periphery of said display unit.

35.    The page information display method according to Claim 34, further comprising, following said article information enlarging display step, a reducing time wire

frame display step of enabling a wire frame, with a start  
5 region at an outside periphery of said display unit, to  
be displayed at multiple stages of varying sizes up to an  
outside peripheral position of the article information at  
said current page, when an enlargement completing  
operation for completing the enlargement of said article  
10 information is performed.

36. The page information display method according to  
Claim 34, wherein said article information enlarging  
display step further comprises an enlarged tag appending  
step of enlarging a tag as well as appending said enlarged  
5 tag to said enlarged article information, in the case where  
said current page has the tag.

37. The page information display method according to  
Claim 34, wherein said article information enlarging  
display step further comprises a substep of embossing an  
article chosen from said current page.

38. A page information display device having an  
electronic information memory for memorizing the

electronic information having plural pages of information  
in a unit of page of predetermined size, a touch panel for  
5 displaying the electronic information stored in said  
electronic information memory in said unit of page, as well  
as inputting an operation to gain access to said page  
information, and a display controller for controlling the  
display of the page information stored in said electronic  
10 information memory on the basis of an operation content  
input into said touch panel,

said display controller comprising an event driven  
display control portion for enabling the pages displayed  
on said touch panel to be changed on the basis of the time  
15 and locus from a pointer down to up on said touch panel,

said event driven display control portion comprising  
a page selection function for each locus direction for  
selecting a page having a smaller page number or a larger  
page number than that of a page being displayed at present  
20 on the basis of the locus of pointer from said pointer down  
to up.

39. The page information display device according to Claim 38, wherein said electronic information memory has the article information making up each page of said electronic information, and said event driven display control portion has an article continuous display function of continuously displaying in enlargement the article information overlapped on a path of the locus on the basis of said path of the locus.

40. A page information display device having an electronic information memory for memorizing the electronic information having plural pages of information in a unit of page of predetermined size, a touch panel for displaying the electronic information stored in said electronic information memory in said unit of page, as well as inputting an operation to gain access to said page information, and a display controller for controlling the display of the page information stored in said electronic information memory on the basis of an operation content input into said touch panel:

said display controller comprising a cache memory for memorizing temporarily the page information that is judged to be displayed on said touch panel among the electronic information stored in said electronic information memory, 15 a continuous page prefetch control portion for storing in advance the page information having a page number following the page number of the current page being displayed at present on said touch panel in said cache memory, and a 20 page turning process control portion for effecting a page turning process by selecting one or more pages in accordance with an operation on said touch panel,

wherein said continuous page prefetch control portion has a pages turning time deleting function of deleting the 25 page data in plural pages from said cache memory, in the case where a page turning operation of plural pages is detected by said page turning process control portion.

41. The page information display device according to Claim 40, wherein said display controller comprises an article information prefetch control portion for storing



the article information within said current page in said  
5 cache memory in the case where the article information is  
contained in said current page.

42. A page information display device, comprising:  
reception means for receiving the ML data described  
in a mark-up language via a communication line from a  
server;

5 ML data conversion means for converting the ML data  
received by said reception means into the image data in  
a unit of page of predetermined size;

an electronic information memory for memorizing the  
page information that is the image data converted by said  
10 ML data conversion means;

a touch panel for displaying the page information  
stored in said electronic information memory as well as  
inputting an operation to gain access to said page  
information; and

15 a display controller for controlling the display of  
the page information stored in said electronic information

memory on the basis of an operation content input into said touch panel,

wherein said ML data conversion means comprises a page number appending portion for converting a link structure of said ML data into one dimensional book structure as well as appending sequentially the page number to the page information after conversion, and

said display controller comprises an event driven display control portion for selecting the page information of a page having a smaller page number or a larger page number than that of a page being displayed at present on said touch panel as a next page to be displayed at the next time on the basis of a locus from the pointer down to up on said touch panel.

43. The page information display device according to Claim 42, wherein said ML data conversion means comprises a tree structure converting portion for designating a single tree structure from the link structure of said ML data as well as converting said tree into a one-dimensional

book structure by searching said tree in a predetermined search order.

44. The page information display device according to Claim 43, wherein said tree structure converting portion searches the link structure of said ML data giving priority to the depth.

45. The page information display device according to Claim 42, wherein said display controller comprises a tag appending portion for appending a tag indicating a page number of said page information to both end portions of  
5 said touch panel, said tag appending portion having a converted page tag display function of displaying the tag for the page having the page number appended by said page number appending portion on said touch panel.

46. A page information display device, comprising:  
reception means for receiving the page information  
from a server;

an electronic information memory for memorizing the  
5 page information being received by said reception means;

a touch panel for displaying the page information stored in said electronic information memory as well as inputting an operation to gain access to said page information; and

10 a display controller for controlling the display of the page information stored in said electronic information memory on the basis of an operation content input into said touch panel,

wherein said display controller comprises a tag  
15 appending portion for displaying a tag indicating the content of the page information stored in said electronic information memory on said touch panel; and

a streaming time dynamic tag appending control portion for operating said tag appending portion as the page  
20 information is being received by said reception means.

47. A page information display device, comprising:  
reception means for receiving the page information having a predetermined total number of pages from a server;

an electronic information memory for memorizing the  
5 page information being received by said reception means;

a touch panel for displaying the page information  
stored in said electronic information memory as well as  
inputting an operation to gain access to said page  
information; and

10 a display controller for controlling the display of  
the page information stored in said electronic information  
memory on the basis of an operation content input into said  
touch panel,

wherein said display controller comprises a tag  
15 appending portion for displaying the tags indicating the  
contents of the page information stored in said electronic  
information memory on said touch panel, the number of said  
tags corresponding to said total number of pages; and

a streaming time dynamic tag coloring control portion  
20 for coloring a tag which has been received with a different  
color from the tags which have not been received, as the  
page information is being received by said reception means.

48. A page information display device comprising:

reception means for receiving the page information  
from a server;

an electronic information memory for memorizing the  
5 page information being received by said reception means;

a touch panel for displaying the page information  
stored in said electronic information memory as well as  
inputting an operation to gain access to said page  
information; and

10 a display controller for controlling the display of  
the page information stored in said electronic information  
memory on the basis of an operation content input into said  
touch panel,

wherein said display controller comprises a tag  
15 appending portion for displaying a tag indicating the  
content of the page information stored in said electronic  
information memory on said touch panel; and

a streaming time dynamic tag length control portion  
for enabling said tag appending portion to create a tag

- 20 having a length corresponding to the amount of information already received in one page of the page information as the page information is being received by said reception means.